49238-3, PM-31, Y

US ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES PROGRAMS
REGISTRATION DIVISION (TS-767)
WASHINGTON, DC 20460

NOTICE OF PESTICIDE: ☒ REGISTRATION ☐ REREGISTRATION

(Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended)

EPA REGISTRATION NO.	DATE OF ISSUANCE
49238-3	AUG 18 1987
TERM OF ISSUANCE	

NAME OF PESTICIDE PRODUCT

DS-2590

NAME AND ADDRESS OF REGISTRANT *(Include ZIP code)*

Druid Supplies, Inc.
P.O. Box 2216
Winter Park, FL 32790

NOTE: Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A) provided that you:

1. Submit/cite all data required for registration/reregistration of your product under FIFRA section 3(c)(5) when the Agency requires all registrants of similar products to submit such data.
2. Add the phrase "EPA Registration No. 49238-3" to your label before you release the product for shipment.
3. Submit five (5) copies of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of final printed labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

John Lee
Product Manager (31)
Disinfectants Branch
Registration Division (TS-767C)

Enclosures

☐ ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL	DATE

EPA Form 8570-6 (Rev. 5-76) PREVIOUS EDITION MAY BE USED UNTIL SUPPLY IS EXHAUSTED.

15002:I:Lee:L-8:KENCO:7/1/87:7/13/87:cdb:VO:dsg:NeeCee

ACCEPTED
with COMMENTS
In EPA Letter Dated:

AUG 18 1987

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 49238-3

DS-2590

ACTIVE INGREDIENT:

Potassium dimethyldithiocarbamate ..... 25.0 %

INERT INGREDIENTS ..... 75.0 %

This product contains 2.3 lb. of active ingredient per gallon and weighs 9.25 lb. per gallon.

KEEP OUT OF REACH OF CHILDREN

DANGER

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: Corrosive. Causes eye and skin damage. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Avoid contamination of food. Wear goggles or face shield and rubber gloves when handling. Wash thoroughly after handling.

STATEMENT OF PRACTICAL TREATMENT: *In case of skin contact,* wash with plenty of soap and water. Remove contaminated clothing and wash before reuse. *If product gets in the eyes,* flush immediately with copious amounts of clean, cool water for at least 15 minutes. Get medical attention immediately. *If product is swallowed,* promptly drink 1 or 2 glasses of water. Contact a physician or Poison Control Center immediately. *DO NOT INDUCE VOMITING.*

Note to physician: Probable mucosal damage may contraindicate gastric lavage.

ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish. Do not discharge effluent containing this active ingredient into lakes, streams, ponds, estuaries, oceans, or public waters unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

Manufactured by:
DRUID SUPPLIES, INC.
P.O. BOX 2216
WINTER PARK, FL 32790

EPA Reg. No. _____ EPA Est. No. _____

Net Contents: _____

DIRECTIONS

It is a violation of Federal law to use thi
its labeling.

DS-2590
recirculating cooling tower systems and i
microbiological slime. Prior to the use of
industrial and/or commercial recirculating c
cleaned to remove algal growth, microbiologic
initial slug addition of 4.5 to 6.8 fl.
per 1000 gal. of water to provide 40 to
, based on total weight o
until control is evident. Make subsequent slug
DS-2950 p
ppm DS-2950) ev
of addition depends upon the relative amo
microbiological problem. Slug additions shoul
ing tower systems.

DS-2950
which maintain effective mist-eliminating com
cleaned to remove bacterial slime and other
13.6 fl. oz. of DS-2950
recommended. Repeat initial dosage until con
7.9 to 13.6 fl. oz. of DS-2
gallons of water should be employed every 1 t
dition depends upon the relative amount of bl
Slug additions may be made to the sump o
system.

STORAGE AN

Do not contaminate water, food, or feed by storage or dis

STORAGE: Do not expose to extreme temperatures. Do n
drums should be placed in overpack drums for disposal. Sp
of in a sanitary landfill. Keep container closed when not in

PESTICIDE DISPOSAL: Pesticide wastes are acutely h
mixture, or rinsate is a violation of Federal Law. If these wa
structions, contact your State Pesticide or Environmental C
your EPA Regional Office for guidance.

CONTAINER DISPOSAL:

☐ PLASTIC: Triple rinse (or equivalent). Then offer for rec
sanitary landfill, by incineration, or, if allowed by state
smoke.

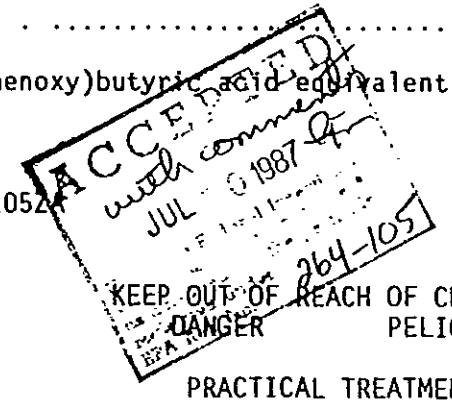
☐ METAL: Triple rinse (or equivalent). Then offer for recy
sanitary landfill, or by other procedure approved by St

ACTIVE INGREDIENT:

4-(2,4-Dichlorophenoxy)butyric acid, dimethylamine salt*.....25.9%

INERT INGREDIENTS: 74.1%

*4-(2,4-Dichlorophenoxy)butyric acid equivalent 22.0% by weight or 2 pounds per gallon.



EPA Reg. No. 264-1052 EPA Est. No. 264-MO-01

KEEP OUT OF REACH OF CHILDREN
DANGER PELIGRO

PRACTICAL TREATMENT
IF IN EYES: FLUSH EYES WITH
LARGE AMOUNT OF WATER AND GET MEDICAL ATTENTION.

PRECAUTIONARY STATEMENTS: See inside booklet.

IN CASE OF EMERGENCY TELEPHONE
(24 HOURS A DAY) IN U.S.A. 1-800-822-4357
FOR GENERAL PRODUCT INFORMATION CALL 1-800-334-9745

UNION CARBIDE AGRICULTURAL PRODUCTS COMPANY, INC.
P. O. Box 12014, T.W. Alexander Drive
Research Triangle Park, N.C. 27709

BUTYRAC is a registered trademark of UNION CARBIDE

Made in U.S.A.

CONTENTS 2.5 GAL.

DO NOT DETACH BOOKLET FROM CONTAINER

SPECIAL PRECAUTIONS
Applied according to directions and under normal growing conditions TRIFLURALIN 4 TSF will not harm the treated crop. Overapplication may result in crop injury or a soil residue. Uneven application or improper soil incorporation of TRIFLURALIN 4 TSF can result in erratic weed control or crop injury. Seedling disease, cool weather, deep planting, excessive moisture, high salt concentration or dry soil may weaken crop seedlings and increase the possibility of damage from TRIFLURALIN 4 TSF. Under these conditions, delayed crop development or reduced yields may result.

In Arizona, Colorado, California, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming, sugarbeets, red beets or spinach should not be planted for 12 months after a spring application or for 14 months after a fall application of TRIFLURALIN 4 TSF. Plow the land to a depth of 12 inches prior to planting sugar beets to prevent the possibility of crop injury. Sorghum (milo) proso millet, corn or oats should not be planted for 14 months after a spring application or for 18 months after a fall application of TRIFLURALIN 4 TSF to avoid crop injury. If land has not been irrigated, do not plant any of these crops for 18 months after a spring application or 20 months after a fall application of TRIFLURALIN 4 TSF.

In those portions of Kansas, Nebraska, North Dakota, Oklahoma, South Dakota and Texas where at least 20 inches of irrigation and/or rainfall (total) was used to produce the crop. Sorghum or oats should not be planted for 12 months after an application of TRIFLURALIN 4 TSF.

If less than 20 inches of total water was used to produce the crop, do not plant sorghum, proso millet, or oats for 18 months after an application of TRIFLURALIN 4 TSF. Cool, wet weather conditions during the early stage of growth may increase the possibility of injury to sorghum.

In all other areas receiving greater than 20" rainfall/year: Moldboard plow before planting sugar beets where a spring application of TRIFLURALIN 4EC was made the previous season. Also note planting restrictions listed in the section on control of rhizome johnsongrass and other higher rate programs.

Vegetable Growing Areas:
Vegetable crops other than those listed on this label should not be planted within 5 months following the application of TRIFLURALIN 4 TSF.

Trifluralin 4 TSF is a pre-emergence herbicide which is incorporated into the soil to provide long-lasting control of many annual grasses and broadleaf weeds. Trifluralin 4 TSF controls weeds as they germinate. Trifluralin 4 TSF will not control established weeds.

(Right Panel)

WEEDS AND GRASSES CONTROLLED BY TRIFLURALIN 4 TSP

GRASSES

Annual bluegrass	(Poa annua)
Barnyardgrass	(Echinochloa sp.)
(Watergrass)	
Brachiaria	(Brachiaria sp.)
(Signalgrass)	
Bromegrass	(Bromus tectorum)
(Cheatgrass)	
(Downy brome)	
Cheat	(Bromus secalinus)
(Chess)	
Crabgrass	(Digitaria sp.)
(Large crabgrass)	
(Smooth crabgrass)	
Foxtail	(Setaria sp)
(Bottlegrass)	
(Bristlegrass)	
(Giant foxtail	
(Green foxtail)	
(Foxtail millet)	
(Pigeongrass)	
(Robust foxtail)	
(Yellow foxtail)	
Goosegrass	(Eleusine indica)
(Silver crabgrass)	
(Silvergrass)	
(Wiregrass)	
(Yardgrass)	
Johnsongrass (from seed)	(Sorghum halepense)
(Rhizome-see page 5 for special instructions for control in cotton and see page 7 for special instructions for control in soybeans)	
Junglerice	(Echinochloa colonum)
Panicum	
Fall panicum	(Panicum dichotomiflorum)
(Spreading panicgrass-see page 5 for special instructions in cotton and see page 7 for special instructions in soybeans)	
Guineagrass	(Panicum maximum)
(See page 12 for special instructions)	
Texas panicum	(Panicum texanum)
(Buffalograss)	
(Coloradograss)	
Itchgrass	(Rottboellia exaltata)
(Raoulgrass)	
(See page 12 for special instructions)	
Red rice	(Oryza sativa)
(See page 7 for suppression or partial control directions)	
Sandbur	(Cenchrus incertus)

(Bluegrass)
Sprangletop (Leptochloa filiformis)
Stinkgrass (Eragrostis cilanensis)
(Lovegrass)
Wild cane (Sorghum bicolor)
(Shattercane)
(See page 8 for special instructions)
Woolly cupgrass (Eriochloa villosa)

BROADLEAF WEEDS
Carpetweed (Molluqo verticillata)
Chickweed (Stellaria media)
Field bindweed (Convolvulus arvensis)
(See page 13 for special instructions)
Florida pusley (Richardia scabria)
(Florida purslane)
(Mexican clover)
(Pusley)
Goosefoot (Chenopodium hybridum)
Henbit (fall application only) (Lamium amplexicaule)
Knotweed (Polygonum aviculare)
Kochia (Kochia scoparia)
(Fireweed)
(Mexican fireweed)
Lambsquarters (Chenopodium album)
Pigweed (Amaranthus spp.)
(Carelessweed)
(Prostrate pigweed)
(Redroot)
(Rough pigweed)
(Spiny pigweed)
Puncturevine (Western U.S. only) (Tribulus terrestris)
(Caltrop)
(Goathead)
Purslane (Portulaca oleracea)
Russian thistle (Salsola kali)
(Tumbleweed)
Stinging nettle (Urtica dioica)
(Nettle)

SOIL PREPARATION

Crop Residues or Existing Weeds: Ground cover, such as crop residues or existing weeds, can interfere with the incorporation of TRIFLURALIN 4 TSP into the soil. A manageable level of such ground cover will allow the TRIFLURALIN 4 TSP to be uniformly incorporated into the top 2 to 3 inches of soil. If the level of the ground cover is such that this cannot be done, you must till the soil prior to the application of TRIFLURALIN 4 TSP.

Roughness: The soil surface should be smooth enough so that you can operate a sprayer and incorporation equipment efficiently and at

speeds which insure a uniform application and incorporation of TRIFLURALIN 4 TSF.

General Soil Conditions: To assure uniform incorporation of TRIFLURALIN 4 TSF, soil moisture conditions should be such that large clods can be broken up during the incorporation process.

SOIL TEXTURE GUIDE

The amount of TRIFLURALIN 4 TSF you apply will vary with the soil texture and organic matter. A fine textured soil will require more TRIFLURALIN 4 TSF per acre than a coarse soil. Choose the proper rate for each application based on the following soil texture group and specific crop recommendations. Do not exceed recommended rates.

Soil Texture	Soil Classification
Coarse Soils (Light)	Sand, loamy sand, sandy loam
Medium Soils	Loam, silty clay loam*, silt loam, silt sandy clay loam*
Fine Soils	Clay, clay loam, silty clay loam*, silty clay, sandy clay, sandy clay loam*

*Silty clay loam and sandy clay loam soils are transitional soils and may be classified as either medium or fine textured soils. If silty clay loam or sandy clay loam soils are predominately sand or silt, they are usually classified as medium textured soils. If they are predominately clay they are usually classified as fine textured soils.

MIXING AND APPLICATION DIRECTIONS

TRIFLURALIN 4 TSF Alone in Water

Start with a clean spray tank. Fill sprayer 1/4 to 1/2 full with clean water. Start agitation. Add correct quantity of TRIFLURALIN 4 TSF, continue agitation and finish filling the tank.

TRIFLURALIN 4 TSF Tank Mix in Water

Vigorous, continuous agitation is required for all tank mixes. (Sparger pipe agitators generally provide the best agitation in spray tanks). Avoid stirring or splashing air into the mixture during filling to prevent foaming. To do this, place the end of the fill pipe below the surface of the water in the spray tank. Do not allow the mixture to siphon back into the water source.

Mixing order: Fill the tank 1/4 to 1/2 full with clean water. Start the agitation. Add dry flowables, wettable powders (WP), aqueous suspensions (AS), flowables (F), and liquids (L) to the water and agitate until the product(s) are completely dispersed in the water. Allow additional mixing and dispersion time when using dry flowable products. Continue agitation and fill tank to 1/4 full, add the TRIFLURALIN 4 TSF, mix thoroughly. Then add any solution (S) formulations, agitate and finish filling. Maintain agitation during filling and through application. If spraying and agitation must be stopped before the tank is

empty, the materials may settle to the bottom in this case, it is important to resuspend all of the material in the bottom of the tank before continuing the spray application. A sparger agitator is particularly useful for this purpose. Sometimes it is more difficult to resuspend settled material than it is to suspend it originally.

Read and carefully follow all label instructions for each material added to the tank. Premixing dry and flowable formulations with water (slurrying) and pouring the slurry through a 20 to 35 mesh wetting screen in the top of the tank will help assure good initial dispersion in the tank water. Line screens in the tank should be no finer than 50 mesh (50 mesh is finer than 50 mesh).

If you see a buildup of material on the walls of the spray tank, wash the tank with soapy water between fillings. Rinse and continue the spraying operation. Clean the tank, lines, and screens thoroughly after use.

As the spray volume decreases, the importance of accurate calibration and uniform application increases. Check the sprayer daily to insure proper calibration and uniform application. Do not apply TRIFLURALIN 4 TSF when the wind can cause drifting of spray particles which can result in non-uniform application. TRIFLURALIN 4 TSF should not be applied to soils which are wet or are subject to prolonged periods of flooding as poor weed control may result.

GROUND APPLICATION: Apply TRIFLURALIN 4 TSF in 5 to 40 gallons of water or liquid fertilizer per acre (broadcast basis), using any properly calibrated, low pressure herbicide sprayer that will apply the spray uniformly.

AERIAL APPLICATION: Apply TRIFLURALIN 4 TSF in 5 to 10 gallons of water or liquid fertilizer per acre. Adjust pump pressure, nozzle arrangements, speed and height to provide a uniform application to the soil surface. Use swath markers or flagmen to assure proper application spray widths.

INCORPORATION DIRECTIONS

INCORPORATION EQUIPMENT-GENERAL DIRECTIONS
Use incorporation equipment that mixes TRIFLURALIN 4 TSF into the top 2 to 3 inches of the final seedbed, or erratic weed control and/or crop injury may result. Incorporation equipment such as a disc will mix TRIFLURALIN 4 TSF approximately half as deep as the equipment is set to operate. For example a disc set to cut 4 inches deep will incorporate most of the TRIFLURALIN 4 TSF within the top 2 inches of soil.

INCORPORATION BEFORE PLANTING
TRIFLURALIN 4 TSF must be incorporated one time within 24 hours after application. Then any time prior to planting, a second incorporation is necessary, this time running the equipment in a different direction from the first. You should incorporate the TRIFLURALIN 4 TSF uniformly into the top 2 to 3 inches of the final seedbed.

INCORPORATION AFTER PLANTING
Check specific crop for incorporation directions after planting.

INCORPORATION IN BEDDED CULTURE
For effective weed control, TRIFLURALIN 4 TSF needs to be incorporated into the top 2 to 3 inches of the final seedbed.

Application prior to bedding: Apply TRIFLURALIN 4 TSF and incorporate it one time with recommended equipment. The bedding operation serves as the second incorporation. Do not expose untreated soil during post-bedding operations.*
Application after bedding: Knock off beds to planting height before applying TRIFLURALIN 4 TSF. Apply TRIFLURALIN 4 TSF and incorporate it with recommended equipment that will conform to the bed shape. Do not leave untreated soil exposed.*

*Avoid removal of untreated soil from the seedbed before or during the planting operation. This would expose untreated soil allowing weeds to germinate in the drill row.

RECOMMENDED EQUIPMENT
Any recommended incorporation tool may be used alone or in combination with any other recommended tool. Two incorporation passes are required unless specifically stated. The second incorporation should not be deeper than the first.

Disc: set to cut 4 to 6 inches deep and operate at 4 to 6 mph.
Field Cultivator: set to cut 3 to 4 inches deep and operate at 5 mph or more. A field cultivator is defined as an implement with 3 to 4 rows of sweeps, spaced at intervals of 7 inches or less and staggered so that no soil is left unturned. Chisel points should not be used.
Combination Seedbed Conditioners: set to cut 3 to 4 inches deep and operate at a speed of at least 5 mph. These implements are defined as three or more tilage devices combined and used as a single tool. For example, 2 to 3 rows of field cultivator C- or S-shaped shanks with an effective sweep spacing of 6 to 9 inches (staggered so that no soil is left unturned), followed by a spike-tooth or flextine harrow, followed by a ground-driven reel or basket.

Rolling Cultivator: set to cut 2 to 4 inches deep and operate at 6 to 8 mph. Rolling cultivators are adequate for use on coarse and medium textured soils only, except when used in sugarcane where the rolling cultivator may be used on fine textured soils.
Bed Conditioner (Do-All): set to cut 2 to 4 inches deep and operate at 4 to 6 mph. The do-all is adequate for use on coarse and medium textured soils only. When using the do-all in bedded culture, only one incorporation pass is required. However, two passes with a do-all are required in flat planted culture.
Mulch Treader (other similar disc-type implements): set to cut 3 to 4 inches deep and operate at 5 to 8 mph.
P.T.O. Driven Equipment (tillers, cultivators, hoes): adjust to incorporate TRIFLURALIN 4 TSF into the top 2 to 3 inches of the

seedbed with rotors spaced to provide a clean sweep of the soil. Only one incorporation is necessary. P.T.O. driven equipment should not be operated at a speed greated than 4 mph.

Other equipment, including the flexible tine-tooth harrow (Flextine, Melroe), is also recommended but only for the special programs for which it is specified in this label.

CULTIVATION AFTER PLANTING

Soil treated with TRIFLURALIN 4 TSF may be shallow cultivated without reducing the weed control activity of TRIFLURALIN 4 TSF. Do not cultivate deeper than the treated soil since this may bring untreated soil to the surface, and poor weed control may result.

CROP RECOMMENDATIONS

These recommendations are given as the broadcast rates of TRIFLURALIN 4 TSF per acre. For band applications, decrease the amount of TRIFLURALIN 4 TSF in proportion to the amount of surface treated per acre. Apply any time after January 1 when the soil can be worked and is suitable for good incorporation. TRIFLURALIN 4 TSF can be applied in the fall - see specific crop for recommendations. For general fall application directions where specific recommendations are not given see page 14. Where a rate range is shown, use the lower rate for coarser soils or soils with lower organic matter. TRIFLURALIN 4 TSF should not be used on soils containing more than 10% organic matter.

COTTON - TRIFLURALLIN 4 TSF ALONE

TRIFLURALIN 4 TSF can be applied and incorporated before or at planting, immediately after planting, or at layby.

COTTON-Preemergence:
Broadcast Rates Per Acre

TRIFLURALIN 4 TSF

Soil Texture	Areas receiving less than 20" average annual rainfall*	Areas receiving greater than 20" average annual rainfall*
	(pints)	(pints)
Coarse	1	1
Medium	1-1/4 - 1-1/2	1-1/2
Fine	1-1/2	2

*Use 1-1/4 pints per acre on coarse and medium textured soils and 2 pints on fine soils with 1-5% organic matter; use 2 to 2-1/2 pints on all soil with 5-10% organic matter.

COTTON - Postplant:
When incorporation TRIFLURALIN 4 TSF after planting (postplant), be careful not to disturb the seed.

COTTON - Layby:
Apply and incorporate TRIFLURALIN 4 TSF any time up to layby, but not less than 90 days before harvest. Direct the layby applications onto the soil between the rows and beneath emerged cotton plants. Use the same rates as for a preemergence application.

COTTON - Fall Application:
Apply and incorporate TRIFLURALIN 4 TSF any time between October 15 and December 31. The ground may be left flat or bedded-up over winter. On bedded ground, knock beds down to desired height before planting, moving some treated soil from beds into furrows. Where soil is left flat over winter, be careful not to turn up untreated soil during spring bedding operations. Destroy established weeds during seedbed preparation. If weeds become established in furrows due to uncovering of untreated soil during bedding, destroy these weeds before planting. In the fall, do not apply TRIFLURALIN 4 TSF to soils which are wet or subject to prolonged periods of flooding.

BROADCAST RATES PER ACRE - FALL APPLICATION ONLY:
In Alabama, Arkansas, northern Florida, Georgia, Louisiana, Mississippi, southeastern Misouri bootheel, North Carolina, New Mexico, Oklahoma, South Carolina, Tennessee and Texas, apply and incorporate TRIFLURALIN 4 TSF at a broadcast rate of 2 pints per acre on coarse and medium soils and 2-1/2 pints on fine soils.

In Arizona, California and Nevada, apply and incorporate TRIFLURALIN 4 TSF at a broadcast rate of 1-1/2 pints per acre on coarse soils; 2 pints on medium soils; and 2-1/2 pints on fine soils.
For cotton grown in other states, apply and incorporate TRIFLURALIN 4 TSF at a broadcast rate of 1 pint per acre on coarse soils; 1-1/2 pints on medium soils; 2 pints on fine soils, 1-1/2 pints on coarse soils with 2-5% organic matter; and 2 to 2-1/2 pints on soils with 5-10% organic matter.

COTTON - SPECIAL USE DIRECTIONS

COTTON - Fall panicum:
In Alabama, Florida, Georgia, North Carolina, South Carolina, and Virginia apply and incorporate TRIFLURALIN 4 TSF at the broadcast rate of 2 pints per acre on both coarse and medium soils.

COTTON - Rhizome johnsongrass:
In all cotton-producing states except Arizona and California, you can obtain commercially acceptable control of rhizome johnsongrass with a double rate program which you apply for 2 consecutive years in accordance with the following directions.

SOIL PREPARATION - Proper preparation of the soil before application is very important for satisfactory results. Use a chisel plow or similar implement to bring rhizomes to the top of the soil. Then follow with a disc two times before application to cut the rhizomes into small (2 to 3 inch) pieces. This should also destroy any emerged johnsongrass.

APPLICATION - Choose the one application program that best fits your cultural practices:

SPRING APPLICATION - Apply TRIFLURALIN 4 TSF any time before planting in the spring for 2 years in a row. Use a broadcast rate of 2 pints per acre on coarse soils; 3 pints on medium soils; and 4 pints on fine soils.

OR

FALL APPLICATION - Apply TRIFLURALIN 4 TSF between October 15 and December 31 to 2 years in a row at the same rates as a spring application for the control of rhizome johnsongrass.

INCORPORATION - Deep incorporation is essential for good rhizome johnsongrass control. Incorporate TRIFLURALIN 4 TSF thoroughly with a disc set to cut 4 to 6 inches deep and operate at 4 to 6 mph. Two passes are necessary, with the second pass in a different direction from the first.

CULTIVATION - Some johnsongrass plants will escape. Timely cultivations during the crop season to remove escaped plants are necessary to obtain commercially acceptable control. You cannot obtain commercially acceptable control with only 1 year of double rate TRIFLURALIN 4 TSF use.

CROP ROTATION - In the season following a double rate treatment, plant only rice and those crops for which TRIFLURALIN 4 TSF can be applied as a preplant treatment or injury may result.

COTTON - Pigweed and seedling johnsongrass control: In Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, southeastern Missouri, North Carolina, South Carolina, Tennessee and southern Virginia, TRIFLURALIN 4 TSF may be applied preplant at a broadcast rate of 1 to 1-1/2 pints per acre on coarse soils; 1-1/2 to 2 pints on medium soils; and 2 pints on fine soils. Exception: in the State of Louisiana, 3 pints per acre are recommended on fine soils.

COTTON - Additional weed and grass control (Texas Gulf Coast): In the Texas Gulf Coast counties of Brazoria, Calhoun, Chambers, Fort Bend, Galveston, Harris, Jackson, Jefferson, Liberty, Matagorda, Orange, Victoria, Waller and Wharton, TRIFLURALIN 4 TSF may be applied up to 2 weeks before planting at a broadcast rate of 1-1/2 pints per acre on coarse soils; 2 pints on medium soils; and 3 pints on fine soils.

COTTON PRECAUTIONS: Cotton should be planted after early season adverse weather conditions have passed, especially when using higher rate programs. Cool, wet weather early in the growth cycle causes additional stress to the cotton plant. This may result in reduced stands, delayed maturity and reduced yields.

COTTON - TANK MIXES AND OVERLAYS
Follow recommended soil preparation and incorporation procedures for TRIFLURALIN 4 TSF.

COTTON - TRIFLURALIN 4 TSF/Caparol tank mix in cotton grown in California, Arizona, New Mexico and west Texas:
The TRIFLURALIN 4 TSF/Caparol combination will control certain grasses and broadleaf weeds listed in TRIFLURALIN 4 TSF alone plus the follow-

ing weeds:

Smartweed	Groundcherry (Annual)
Prickly side (Teaweed)	Mustard
Annual morningglory	Malva
Ragweed	Wild oat

The tank mix also controls shallow germinating seedlings of cocklebur and coffeeweed.

Broadcast Rates Per Acre

Soil Texture	TRIFLURALIN 4 TSF	Caparol 80W
	(pints)	(pounds)
Coarse	1	2*
Medium	1-1/4 - 1-1/2	2-1/2
Fine	2	2-1/2

*Do not use on sands and loamy sands. For band applications use proportionately less.

Mixing Directions: Carefully follow the procedures on the Caparol 80W label for making a slurry and adding it to a partially filled tank of water. After the Caparol is thoroughly mixed with the partially filled tank of water, add the TRIFLURALIN 4 TSF and continue filling. Agitate continuously during the filling and spraying operation.

Avoid leaving the spray mixture in the tank without constant agitation. If bypass agitation is used, the bypass line should stop at the bottom of the tank to minimize foaming.

Additional Precautions: The combination of TRIFLURALIN 4 TSF/Caparol should not be used in the cut areas of newly leveled fields, in areas of excess salt, or where flooding over the beds if likely to happen. Do not plant cotton in tractor wheel depressions. These conditions may cause crop injury. On mulch-planted cotton, water back only after cotton seedlings are well established.

Crop Rotations: Cabbage, okra, onions and peas may be planted in the fall after a spring application of TRIFLURALIN 4 TSF plus Caparol. Winter barley, winter rye and winter wheat can be planted in the fall also, if they are plowed down and not used for food or feed. Refer to the Caparol label for directions, cautions and precautions.

COTTON - TRIFLURALIN 4 TSF/Cotoran tank mix (except in Arizona and California):
Follow recommended soil preparation and incorporation procedures for TRIFLURALIN 4 TSF.
The TRIFLURALIN 4 TSF/Cotoran tank mix effectively controls all the annual grasses and broadleaf weeds listed for TRIFLURALIN 4 TSF alone plus these additional weeds:

Ryegrass	Prickly sida (Teaweed)
Buttonweed	Ragweed
Cocklebur	Sesbania
Groundcherry, Wright	Sicklepod
Jimsonweed	Smartweed

Morningglory Tumbleweed

Broadcast Rates Per Acre

Soil Texture	TRIFLURALIN 4 TSF	Cotoran 80W
	(pints)	(pounds)
Coarse	1	1-1/4
Medium	1-1/2	2
Fine	2	2-1/2

Mixing Directions: Carefully follow the procedures on the Cotoran label for making a Cotoran slurry and adding it to a partially filled tank of water. After the Cotoran is thoroughly mixed with the partially filled tank of water, add the TRIFLURALIN 4 TSF and continue filling. Agitate continuously throughout the filling and application operations. Do not leave spray mixture in tank without constant agitation. If bypass agitation is used, the bypass line should stop at the bottom of the tank to minimize foaming. Apply in 10-40 gallons of water per acre.

Additional Precautions: Do not plant crops other than cotton on the treated land within 6 months after the application of TRIFLURALIN 4 TSF plus Cotoran, or crop injury may result. Do not feed foliage from treated cotton plants or give trash to livestock. Do not mix TRIFLURALIN 4 TSF plus Cotoran with liquid fertilizer.

West Texas Only: Do not use the tank mix of TRIFLURALIN 4 TSF plus Cotoran on sandy, loamy sand or fine sandy loam soils. Do not use on cotton planted in furrows.

Arkansas, Louisiana, and Mississippi Only: Use 1 pound Cotoran 80W in tank mix with TRIFLURALIN 4 TSF on sandy loam soils low in organic matter.

New Mexico: Do not plant treated land with crops other than cotton until 1 year after the last application. Do not use on sandy or coarse textured soils of less than 1% organic matter.

COTTON - TRIFLURALIN 4 TSF preplant followed by Cotoran overlay: Apply and incorporate TRIFLURALIN 4 TSF as recommended for the specific soil texture. Then apply Cotoran as a preemergence surface treatment at 1-1/4 to 2-1/2 pounds per acre. On light silt and sandy soils low in organic matter, use the lower rate.

Additional Precaution: Refer to the Cotoran label for all cautions and precautions when using this preemergence surface treatment.

COTTON - TRIFLURALIN 4 TSF preplant followed by Karmex overlay: For cotton grown east of the Mississippi River plus Arkansas, southeastern Missouri, Louisiana and Eastern Texas, incorporate TRIFLURALIN 4 TSF before planting. Then follow with a preemergence application of Karmex. This will effectively control all the weeds controlled by TRIFLURALIN 4 TSF alone plus these additional weeds:

Ragweed Shepherdspurse

Annual groundcherry — Velvetgrass
Dogfennel — Wild lettuce
Pennycress — Wild mustard
Annual morningglory

Broadcast Rate Per Acre

Soil Texture	TRIFLURALIN 4 TSP	Granules
	(pints)	(pounds)
Coarse		13
Medium	1	13
Fine		1

Additional Precautions: Do not use Farmex ... soils with ... organic matter as crop injury may result. ... not allow livestock to graze on ... treated with ... the ... additional instructions, ...

SOYBEAN - TRIFLURALIN 4 TSP ...

SOYBEAN - Preemergence:
Follow recommended soil preparation, application and incorporation procedures for TRIFLURALIN 4 TSP.

Broadcast Rates Per Acre

Soil Texture	TRIFLURALIN 4 ...
	Pints
Coarse	
Medium	
Fine	

*Use 1-... pints per acre ... pints on ... soils with ... organic matter ... all soils with 5-11% organic matter.

Use the following application rates ... 20 rainfall.

Soil Texture	TRIFLURALIN ...
	(pints)
Coarse	
Medium	1-1-4 ...
Fine	1-1 ...

SOYBEAN - Fall Application:
Apply and incorporate TRIFLURALIN 4 TSP anytime between ... December ... Ground may be left flat or bedded-up over winter. ... bedded ground, knock beds down to desired height before planting, moving some treated soil from tops into furrows. Where soil is left flat over winter, take care during spring tilling operations to prevent turning up untreated soil. Destroy established weeds during seedbed preparation. If weeds become established in furrows due to uncovering of untreated soil during listing, destroy these ... planting. Do not fall apply TRIFLURALIN 4 TSP to soils which are subject to prolonged periods of flooding or where ... the previous year.

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For soybeans grown in Alabama, Arkansas, northern Florida, Georgia, Louisiana, Mississippi, southeastern Missouri, Southeast Texas, Oklahoma, South Carolina, Tennessee and Texas, apply and incorporate TRIFLURALIN 4 TSF at a broadcast rate of 2 pints per acre on medium soils and 2-1/2 pints on fine soils.

For soybeans grown in states other than those listed above, apply and incorporate TRIFLURALIN 4 TSF at a broadcast rate of 1 pint per acre on coarse soils; 1-1/2 pints on medium soils; 2 pints on fine soils; 1-1/2 pints on coarse soils with 2-5% organic matter; and 2-1/2 pints on fine soils with 5-10% organic matter.

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SOYBEAN - Fall panicum:
Apply TRIFLURALIN 4 TSF at the broadcast rate of 2 pints per acre on both coarse and medium soils.

SOYBEAN - Annual sowthistle and seedling johnsongrass:
In Alabama, Arkansas, Florida, Georgia, Kansas, Louisiana, Mississippi, southeastern Missouri, North Carolina, Oklahoma, South Carolina, Tennessee and southern Virginia, TRIFLURALIN 4 TSF may be applied at a broadcast rate of 1 to 1-1/2 pints per acre on coarse soils; 1-1/2 to 2 pints on medium soils; and 2 pints on fine soils. Exception: in the state of Louisiana 2 pints per acre are recommended on fine soils.

SOYBEAN - Additional weed and grass control Texas Gulf Coast:
In the Texas Gulf Coast counties of Brazoria, Calhoun, Chambers, Fort Bend, Galveston, Harris, Jackson, Jefferson, Liberty, Matagorda, Orange, Victoria, Waller and Wharton, TRIFLURALIN 4 TSF may be applied up to 2 weeks before planting at a broadcast rate of 1-1/2 pints per acre on coarse soils; 2 pints on medium soils, and 3 pints on fine soils.

SOYBEAN - Charcoal soils Arkansas, Louisiana and Mississippi:
Newly cleared land often contains high organic matter charcoal and charcoal burning debris. This charcoal and/or remaining litter tends to bind TRIFLURALIN 4 TSF and reduce its weed control activity. Under these conditions, higher rates of TRIFLURALIN 4 TSF may be necessary for weed control. Increased rates, however, can cause crop injury if charcoal or organic matter is not present to bind some of the TRIFLURALIN 4 TSF. In the burn row, high level of charcoal is present, consequently, poor weed control may result with an increased rate of TRIFLURALIN 4 TSF.
Apply TRIFLURALIN 4 TSF at the broadcast rate of 2-1/2 to 3 pints per acre on coarse soils; 3 1/2 pints on medium soils; 4 pints on fine textured soils. Follow recommended soil preparation and incorporation procedures for TRIFLURALIN 4 TSF.

SOYBEAN - Johnsongrass in Arkansas, Louisiana, Mississippi and Missouri:
You can obtain suppression or partial control of rhizome johnsongrass when you apply TRIFLURALIN 4 TSF at the following recommended rates. Follow recommended soil preparation and incorporation procedures for TRIFLURALIN 4 TSF.
Apply at the broadcast rate for your soil type in the spring just after

Broadcast Rate Per Acre

TRIFLURALIN 4 TSF

Soil Texture	Application Year 1	Application Year 2
	(pints)	(pints)
Coarse	2	1
Medium	3	1-1/2
Fine	4	2
Coarse soils with 2 to 5% organic matter	3	1-1/2
Soils with 5 to 10% organic matter	4	2-1/2

If a combination of high organic matter (5-10%) and charcoal are present in the soil, apply TRIFLURALIN 4 TSF the second year at the following rates for charcoal soils in Arkansas, Louisiana, and Mississippi:

Soil Texture	TRIFLURALIN 4 TSF
	(pints)
Coarse	1-1/2 to 2-1/2
Medium	2-1/2
Fine	3

For more information on charcoal soils see above.

Crop Rotation: The program for red rice control in soybeans is a 2-year program. Use the rates listed for first year application and plant soybeans. The second year use the normal TRIFLURALIN 4 TSF rates listed for your soil type and charcoal level and plant only those crops for which TRIFLURALIN 4 TSF has been registered as a preplant treatment, or crop injury may result. Do not plant rice the second year. Rice may be planted the third year.

SOYBEAN - Rhizome johnsongrass (Eastern United States and the state of Texas):
You can obtain commercially acceptable control of rhizome johnsongrass with a double rate program applied for 2 consecutive years in accordance with the following directions.

Soil Preparation - Proper preparation of the soil before application is very important for satisfactory results. Use a chisel plow or similar implement to bring rhizomes to the top of the soil. Then follow with a disc two times before application to cut the rhizomes into small (2 to 3 inch) pieces and to destroy any emerged johnsongrass.

Application - Choose the one application program that best fits your cultural practices:

Spring Application - TRIFLURALIN 4 TSF anytime in the spring before planting for 2 years in a row. Use a broadcast rate of 2 pints per acre on coarse soils; 3 pints on medium soils; 4 pints on fine soils; 3 pints on coarse soils

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with 2-5% organic matter; and 4 pints on soils with 5-10% organic matter.
OR
Fall Application - Apply TRIFLURALIN 4 TSF between October 15 and December 31 for 2 years in a row at the same rates as a spring application for the control of rhizome johnsongrass.
OR
Split Application - Apply TRIFLURALIN 4 TSF at the same rate in both the spring and fall for 2 years in a row using the rates in the following table:

Broadcast Rates Per Acre

Soil Texture	TRIFLURALIN 4 TSF Spring and Fall (pints)
Coarse	1
Medium	1-1/2
Fine	2
Coarse soils with 2-5% organic matter	1 1/2
Soils with 5-10% organic matter	2

Incorporation - Deep incorporation is essential for good rhizome johnsongrass control. Incorporate TRIFLURALIN 4 TSF thoroughly with a disc set to cut 4 to 6 inches deep and operate at 4 to 6 mph. Two passes are necessary, with the second pass in a different direction from the first.

Cultivation - Some johnsongrass plants will escape. Timely cultivations during the crop season to remove escaped plants are necessary to obtain commercially acceptable control.

Crop Rotation: In the season following a double rate treatment, plant only rice and those crops for which TRIFLURALIN 4 TSF can be applied as a preplant treatment or injury may result.

SOYBEAN - Rhizome johnsongrass - TRIFLURALIN 4 TSF/Sencor or TRIFLURALIN 4 TSF/Lexone tank mix:
TRIFLURALIN 4 TSF/Sencor or TRIFLURALIN 4 TSF/Lexone may be used for rhizome johnsongrass control and for the control of those weeds listed for TRIFLURALIN 4 TSF alone. For the additional weeds controlled by Sencor or Lexone in tank mix, see below. Follow procedures for soil preparation, incorporation, and cultivation recommended in the Soybean - Rhizome johnsongrass section (see page 7).

Apply TRIFLURALIN 4 TSF/Sencor or Lexone up to two weeks before planting for two consecutive years at the following broadcast rates per acre:

Lexone Lexone

Soil Texture	TRIFLURALIN 4 TSF	50WP/4L or Sencor + 50WP/4	or	(dry flowable) or Sencor (dry flowable)
	(pints)	(lbs./pints)		(lbs.)
Coarse*	2	1/2		1/3
Medium	3	3/4		1/2
Fine	4	1		2/3

*Do not use on coarse soils with less than 1% organic matter.

Read and follow all additional precautions listed for the TRIFLURALIN 4 TSF/Sencor or TRIFLURALIN 4 TSF/lexone tank mix (see below).

SOYBEAN - Wild cane (shattercane):
Follow recommended soil preparation and application procedures for TRIFLURALIN 4 TSF.
Wild cane (shattercane) can germinate throughout the growing season and from greater soil depth than most other weed seeds. Commercially acceptable control of wild cane can be obtained with the following increased rated of TRIFLURALIN 4 TSF.

Apply TRIFLURALIN 4 TSF at the broadcast rate of 1 pint per acre on a coarse soil; 2 pints on a medium soil; and 2-1/2 pints on a fine textured soil.

Incorporation - Deep incorporation is essential for good wild cane control. incorporate TRIFLURALIN 4 TSF thoroughly with a disc set to cut 4 to 6 inches deep and operate at 4 to 6 mph. Two passes are necessary, with the second pass in a different direction from the first.

Cultivation - Cultivations during the crop season will also contribute to control.

SOYBEAN PRECAUTIONS: Soybeans should be planted after early season adverse weather conditions have passed, especially when using higher rate programs. Cool, wet weather early in the growth cycle causes additional stress to the soybean plant. This may result in reduced stands, delayed maturity and reduced yields.

SOYBEAN - TANK MIXES AND OVERLAYS
SOYBEAN - TRIFLURALIN 4 TSF/Sencor or TRIFLURALIN 4 TSF/Lexone tank mix:
The TRIFLURALIN 4 TSF/Sencor or TRIFLURALIN 4 TSF/Lexone tank mix effectively controls the annual grasses and broadleaf weeds controlled by TRIFLURALIN 4 TSF alone plus these additional weeds:

Jimsonweed	Ragweed, common
Mallow, Venice (Flower-of-an-hour)	Sesbania, hemp
Mustard, wild	Smartweed, Pennsylvania
Prickly sida	Velvetleaf

Control of cocklebur, morningglory and giant ragweed (horseweed) may be erratic. Control may be improved with timely cultivation. Where cocklebur is a serious problem, an overlay of Sencor or Lexone may be preferred to the TRIFLURALIN 4 TSF/Sencor or TRIFLURALIN 4 TSF/Lexone tank mix.

Follow recommended procedures for soil preparation, incorporation, and cultivation of TRIFLURALIN 4 TSF. Mix according to instructions on page 4. The TRIFLURALIN 4 TSF/Sencor or TRIFLURALIN 4 TSF/Lexone tank mix can be applied from 3 weeks before planting up to planting.

Broadcast Rates Per Acre

Soil Texture	TRIFLURALIN 4 TSF	Lexone 50WP/4L or Sencor + 50WP/4	or	Lexone (dry flowable) or Sencor dry flowable)
	(pints)	(lbs./pints)		(lbs.)
Coarse*	1	1/2		1/3
Medium	1-1/2	3/4		1/2
Fine	2	1		2/3

*Do not use Sencor/Lexone in coarse soils with less than 1% organic matter.

Additional Precautions: Do not plant any crop other than soybeans within 4 months after treatment. Overapplication, uneven application, or improper soil incorporation may result in crop injury, herbicide residue, or erratic weed control. Additional stress factors are seedling disease, cold weather, deep planting, excessive moisture, soil ph over 7.5, high salt concentration, or drought. Any of these may weaken crop seedlings and increase possibility of damage from the tank mix. These additional factors may also delay crop development or reduce yields when Sencor or Lexone is applied. Observe all cautions and limitations on the Sencor and Lexone labels. Do not use the foliage from soybeans treated with the TRIFLURALIN 4 TSF/Sencor or TRIFLURALIN 4 TSF/Lexone tank mix for feed or forage.

SOYBEAN - TRIFLURALIN 4 TSF preplant followed by Sencor or Lexone as an overlay:

Apply TRIFLURALIN 4 TSF as a preplant incorporated herbicide. As a separate operation, make a single application of Sencor or Lexone as either a band or broadcast spray during planting or as a separate operation after planting, but before the soybeans emerge. Do not spray Sencor or Lexone over the top of emerged soybeans, or crop injury may result.

Use Direction - Follow directions on the Sencor or Lexone labels for specific instructions regarding each herbicide.

Broadcast Rates Per Acre

Postplant/Preemergence

Soil Texture	TRIFLURALIN 4 TSF	Sencor 50WP/4 or [Lexone]* [50WP/4L]	or	Sencor (dry flowable) or [Lexone]* [(dry flowable)]
	(pints)	(lbs./pints)		(lbs.)
Coarse**	1	3/4-1 [3/4]		1/2-2/3 [1/2]
Medium	1-1/2	3/4 - 1-1/2 [3/4 - 1]		1/2 - 1 [1/2 - 2/3]
Fine	2	1 - 1-3/4 [1]		2/3 - 1-1/6 [2/3]

*Lexone rates for each soil texture are enclosed in brackets [ ].
**Do not apply Lexone to sand or soils with less than 1/2% organic matter. Do not apply Sencor to coarse soils (sandy loam and loamy sand) containing less than 2% organic matter.

Additional Sencor and Lexone precautions: Do not use Lexone or Sencor on Tracy, Semmes, Altona, Vansoy or Coker 102 soybeans. These varieties are sensitive to Lexone or Sencor, and crop injury may result. Seed must be planted at least 1-1/2 inches but not more than 2 inches below the soil surface before a Sencor or Lexone application. Do not apply Sencor or Lexone at these rates more than once per season. Do not replant areas treated with Sencor or Lexone with any crop other than soybeans within 4 months after treatment. Injury to soybeans may occur if you use Lexone or Sencor on soils having a calcarous surface or ph of 7.5 or higher, or if you use them in conjunction with soil-applied organic phosphate pesticides. Do not use the foliage from treated soybeans for feed or forage.

SOYBEAN - TRIFLURALIN 4 TSF/Amiben tank mix or overlay:
Tank mix - Amiben may be applied several days prior to planting as a broadcast tank mix with TRIFLURALIN 4 TSF. Weeds controlled by this tank mix, in addition to those controlled by TRIFLURALIN 4 TSF alone, are smartweed, velvetleaf and ragweed. The tank mixture should be used as a spring preplant incorporated treatment.

Overlay - Amiben may be applied broadcast or in a band over the soybean row at planting time in fields where TRIFLURALIN 4 TSF has been preplant incorporated. Weeds controlled by Amiben when surface applied in addition to those controlled by TRIFLURALIN 4 TSF alone, are:

Coffeeweed (Sesbania)	Spurge, annual
Mustard, wild	Smartweed, Pennsylvania
Nightshade, black	Stinkgrass
Prickly sida (Teaweed)	Velvetleaf
Ragweed common	

Apply TRIFLURALIN 4 TSF as a tank mix with Amiben, or apply and incorporate TRIFLURALIN 4 TSF alone followed by an overlay application of Amiben at these rates:

Broadcast Rates Per Acre

Soil Texture	TRIFLURALIN 4 TSF	Amiben 2S
	(pints)	(quarts)
Coarse	1	4-6*
Medium	1-1/2	4-6
Fine	2	4-6

*Use the higher rate where you expect heavy populations of smartweed, velvetleaf, ragweed, wild mustard or black nightshade. Do not use on muck or charcoal soils. Read and observe all directions and cautions on the Amiben label.

SOYBEAN - TRIFLURALIN 4 TSF/Amiben/Sencor or Lexone tank mix: The TRIFLURALIN 4 TSF/Amiben/Sencor or Lexone tank mix effectively controls all weeds listed for TRIFLURALIN 4 TSF/Amiben and TRIFLURALIN 4 TSF/Sencor or Lexone tank mixes.

Follow recommended soil preparation, application, and incorporation procedures for TRIFLURALIN 4 TSF. The TRIFLURALIN/Amiben/Sencor or Lexone tank mix may be applied from several days prior to planting up to planting in 10 to 40 gallons of water per acre. Use screens no finer than 50 mesh.

Apply the TRIFLURALIN 4 TSF/Amiben/Sencor or Lexone tank mix at the following broadcast rate per acre.

Soil Texture	TRIFLURALIN 4 TSF	Amiben + 2S	Lexone 50WP/4L or Sencor + 50WP/4	or	Lexone (dry flowable) or Sencor (dry flowable)
	(pints)	(qts)	(lbs/pints)		(lbs)
Coarse*	1	3-4**	1/2		1/3
Medium	1-1/2	3-4**	1/2-3/4***		1/3-1/2***
Fine	2	4-6	3/4***		1/2***

*Do not use Sencor or Lexone on coarse soils with less than 1% organic matter.

**Use the higher rate of Amiben when velvetleaf or black nightshade is a problem.

***On Clarion/Webster soils in Minnesota and Iowa or on similar alkaline (calcareous) soils with a ph of 7.5 or above, apply Sencor or Lexone at the rates listed below.

Soil Texture	Lexone 50WP/4L or Sencor 50WP/4	or	Lexone (dry flowable) or Sencor (dry flowable)

	(lbs/pints)	(lbs)
Medium	1/2	1/3
Fine	1/2 - 3/4	1/3 - 1/2*

*Use the higher rate only where soil ph is less than 7.5 and where weed pressure is heavy.

Additional precautions: The TRIFLURALIN 4 TSF/Amiben/Sencor or Lexone tank mix will not harm the treated crop when you apply it according to directions and under normal growing conditions. However, over-application, uneven application or improper soil incorporation of the tank mix can result in erratic weed control or crop injury. Additional stress factors are seedling disease, cold weather, deep planting, excessive moisture, soil ph over 7.5, high salt concentration, or drought. These additional factors may weaken crop seedlings and increase the possibility of damage from the tank mix. These additional factors may also delay crop development or reduce yields. observe all cautions and limitations of all products used in mixtures. Do not use the foliage from soybeans treated with the TRIFLURALIN 4 TSF/Amiben/Sencor or Lexone tank mix for feed or forage.

SOYBEAN - TRIFLURALIN 4 TSF/Vernam tank mix:
TRIFLURALIN 4 TSF/Vernam tank mix effectively controls those weeds listed for TRIFLURALIN 4 TSF alone plus these additional weeds:

Purple nutsedge (nutgrass)	Coffeeweed
Yellow nutsedge (nutgrass)	Velvetleaf
Annual morningglory	

Follow recommended soil preparation procedures for TRIFLURALIN 4 TSF. You may apply the TRIFLURALIN 4 TSF/Vernam tank mix up to 10 days prior to planting. Incorporate the tank mix immediately after application. Apply TRIFLURALIN 4 TSF/Vernam at these rates.

Broadcast Rates per Acre

Soil Texture	TRIFLURALIN 4 TSF (pints)	Vernam 7E (pints)
Coarse	1	1-3/4 - 2-1/3
Medium	1-1/2	2-1/3 - 3*
Fine	2	3 - 3-1/2

*For nutsedge, wild cane and velvetleaf control, use the higher rate of 3 pints per acre on medium textured soils.

ALFALFA - ESTABLISHED
In areas receiving less than 20" average annual rainfall per year, apply TRIFLURALIN 4 TSF to established alfalfa stands at a broadcast rate of 1-1/2 pints per acre on coarse soils and 2 pints on medium and fine soils. Use incorporation equipment that will insure thorough soil mixing with minimum damage to the established alfalfa.

ASPARAGUS - ESTABLISHED
Follow recommended soil preparation, application and incorporation procedures for TRIFLURALIN 4 TSF.

TRIFLURALIN 4 TSF can be applied to established asparagus as a single or as a split application. In the winter or early spring, apply TRIFLURALIN 4 TSF to asparagus after ferns are removed but before spear emergence. Or, apply after harvest in the late spring or early summer before fernino begins. TRIFLURALIN 4 TSF will suppress volunteer seedling asparagus and field bindweed if you use the following recommended rates and application schedules.
Follow recommended soil preparation, application and incorporation procedures for TRIFLURALIN 4 TSF.

Broadcast Rates per Acre

	TRIFLURALIN 4 TSF					
	Split Application			Single Application		
	Before Harvest	+	After Harvest	Before Harvest	or	After Harvest
Soil Texture	(pints)			(pints)		
Coarse	1	+	1	2	or	2
Medium	1-1/2	+	1-1/2	3	or	3
Fine	2	+	2	4	or	4

In any single calendar year, the maximum TRIFLURALIN 4 TSF to apply is 2 pints per acre on coarse soils; 3 pints on medium soils; and 4 pints on fine soils.

FOR THE FOLLOWING CROP GROUPING,
USE THE RATE TABLE BELOW

CARROT
CASTOR BEAN
CELERY - (Direct seeded and transplant in areas receiving less than 20" average annual rainfall.)
COLE CROPS - TRANSPLANT
Apply and incorporate prior to transplanting only. (Broccoli, Brussels Sprout, Cabbage and Cauliflower) See next section for direct seeded.
OKRA
PEPPER - TRANSPLANT
Apply and incorporate prior to transplanting only.
SOUTHERN PEA - (Before planting only.)
Apply and incorporate TRIFLURALIN 4 TSF before planting, at planting or immediately after planting, unless otherwise indicated.

Broadcast Rates Per Acre

TRIFLURALIN 4 TSF

Soil Texture	Areas receiving less than 20" average annual rainfall*	Areas receiving greater than 20" average annual rainfall
	(pints)	(pints)
Coarse	1	1
Medium	1-1/4 - 1-1/2	1-1/2
Fine	1-1/2	2

*Use 1-1/2 pints per acre on coarse and medium textured soils and 2 pints on fine soils with 2-5% organic matter; use 2 pints on all soils with 5-10% organic matter.

COLE CROPS - DIRECT SEEDED (Broccoli, Brussels Sprouts, Cabbage and Cauliflower) See above section for transplant.

For direct-seeded cole crops, apply and incorporate TRIFLURALIN 4 TSF before planting at a broadcast rate of 1 pint per acre on coarse and medium soils and 1-1/2 pints on fine soils and soils with 2-5% organic matter. Direct-seeded cole crops have exhibited marginal tolerance to recommended rates of TRIFLURALIN 4 TSF. Stunting or reduced stands may occur.

CUCURBITS - POSTPLANT EMERGED (Cantaloupe, Cucumber and Watermelon) Western United States including Texas:
Apply TRIFLURALIN 4 TSF as a directed spray to the soil between the rows and beneath plants which are in the 3 to 4 true leaf stage.

Broadcast Rates Per Acre

Soil Texture	TRIFLURALIN 4 TSF: Areas receiving less than 20" average annual rainfall*	TRIFLURALIN 4 TSF: Areas receiving greater than 20" average annual rainfall*
	(pints)	(pints)
Coarse	1	1
Medium	1-1/4 - 1-1/2	1-1/2
Fine	1-1/2	2

*Use 1-1/4 pints on coarse and medium textured soils and 1 pints on fine soils with 2-5% organic matter; use 2 pints on all soils with 5-10% organic matter.

Set incorporation equipment to throw treated soil around the plants during incorporation.

DRY BEAN - TRIFLURALIN 4 TSF ALONE
Apply and incorporate TRIFLURALIN 4 TSF before planting using the

following rates:

Broadcast Rates Per Acre

	TRIFLURALIN 4 TSF	
Soil Texture	Areas receiving less than 20" average annual rainfall*	Areas receiving greater than 20" average annual rainfall*
	(pints)	(pints)
Coarse	1	1
Medium	1-1/4 - 1-1/2	1-1/2
Fine	1-1/2	2

*Use 1-1/2 pints per acre on coarse and medium textured soils and 2 pints on fine soils with 2-5% organic matter; use 2 pints on all soils with 5-10% organic matter.

DRY BEAN - TRIFLURALIN 4 TSF/Eptam tank mix:
The TRIFLURALIN 4 TSF/Eptam tank mix effectively controls all the following weeds in addition to those weeds listed for TRIFLURALIN 4 TSF (see page 2):

Henbit (Spring applications)	Oat, wild
Nightshade, black	Ragweed, common
Nightshade, hairy	Smartweed, Pennsylvania
Nutsedge	Velvetleaf (Buttonweed)

Follow recommended soil preparation and incorporation procedures for TRIFLURALIN 4 TSF. The TRIFLURALIN 4 TSF/Eptam tank mix should be applied from 2 days before planting up to planting. Incorporate immediately after application.

Broadcast Rates Per Acre

	TRIFLURALIN 4 TSF		
Soil Texture	Areas receiving less than 20" average annual rainfall*	Areas receiving greater than 20" average annual rainfall*	Eptam 7E
(pints)	(pints)	(pints)	
Coarse	1	1	2-1/2 - 3-1/2**
Medium	1-1/4 - 1-1/2	1-1/2	2-1/2 - 3-1/2
Fine	1-1/2	2	2-1/2 - 3-1/2

*Use 1-1/2 pints per acre on coarse and medium textured soils and 2 pints on fine soils with 2-5% organic matter; use 2 pints on all soils with 5-10% organic matter.

**Use Eptam 7E at a rate of 2-1/2 pints per acre to control annual grasses; 3-1/2 pints to control nutsedge and additional broadleaf

weeds.

Precaution: Read the Eptam label before using. Observe all cautions and limitations of all products used in mixtures. The combination of TRIFLURALIN 4 TSF and Eptam should not be used on soybeans, black-eyed peas (beans), lima beans and other flatpodded beans; except Romano. Do not use the foliage from a crop treated with the TRIFLURALIN 4 TSF/Eptam tank mix for feed or for grazing.

DRY BEAN - Fall application for dry bean grown in Idaho, Oregon, and Washington:
Apply and incorporate TRIFLURALIN 4 TSF any time between October 15 and December 31 at a broadcast rate of 1 pint per acre on coarse soils; 1-1/4 to 1-1/2 pints on medium soils; and 1-1/2 pints on fine soils. Destroy established weeds during seedbed preparation.

FOR THE FOLLOWING CROP GROUPING,
USE THE RATE LISTED BELOW.
BEANS - (Guar and Mungbean)
GREENS - Turnip greens grown for processing, Collard, Kale and Mustard greens.
MUSTARD - Grown for seed or processing for food in Minneasota, Montana and North Dakota:
Apply and incorporate TRIFLURALIN 4 TSF before planting at 1 pint per acre on coarse soils and 1-1/2 pints on medium and fine soils.
BEANS - (Lima Bean and Snap Bean):
Apply and incorporate TRIFLURALIN 4 TSF before planting at a broadcast rate of 1 pint per acre on coarse and medium soils and 1-1/2 pints on fine soils.

CORN (FIELD CORN) and GRAIN SORGHUM (MILO):
Apply TRIFLURALIN 4 TSF to field corn or grain sorghum (8 inches or taller) as an over-the-top or directed spray to effectively control weeds listed for TRIFLURALIN 4 TSF.

Soil Preparation - Cultivate before a TRIFLURALIN 4 TSF application to insure loose, friable soil, to remove established weeds, and to cover the base of plants with soil.

Application Directions - TRIFLURALIN 4 TSF should be applied and incorporated at the recommended rates for the soil texture when crop is well established (8 inches or taller). TRIFLURALIN 4 TSF may be applied either as an over-the-top spray or as a directed spray. Drop nozzles should be used if foliage prevents uniform coverage of soil surface. Soil incorporation may be accomplished with only one pass of a sweep-type cultivator or a properly adjusted rolling cultivator.

The sweep-type cultivator should have 3 to 5 sweeps per row middle and be operated at 6 to 8 mph. Set the middle sweeps so as to avoid exposing untreated soil. Adjust the incorporation tools to prevent crop injury.

Broadcast Rates Per Acre

Soil Texture	TRIFLURALIN 4 TSF (pints)
Coarse	1/4-1*
Medium	1 - 1-1/2
Fine	1-1 [illegible] - 2

Use the lower rates when you anticipate light weed pressure and the higher rates when you anticipate heavy weed pressure.

*Corn only: Apply 1 to 1-1/2 pints per acre in Alabama, Florida, Georgia, North Carolina, South Carolina and Virginia to control fall panicum and Texas panicum.

Precaution: Do not apply TRIFLURALIN 4 TSF to corn grown for seed. Do not apply TRIFLURALIN 4 TSF to corn or sorghum as a preplant or pre-emergence treatment, or crop injury may occur.

HOPS
Apply and incorporate TRIFLURALIN 4 TSF while the crop is dormant. Use a broadcast rate of 1 pint per acre on coarse soils; 1-1/4 to 1-1/2 pints on medium soils; and 1-1/2 pints on fine soils and soils with 2-10% organic matter.

MINT - (Established Peppermint and Spearmint):
Apply TRIFLURALIN 4 TSF at a rate of 1 pint per acre on coarse soils; 1-1/4 pints on medium soils; and 1-1/2 pints on fine soils. Use incorporation equipment that will insure thorough soil mixing with minimum damage to the crop.

PEA - (Dry and English) - TRIFLURALIN 4 TSF ALONE
Apply and incorporate TRIFLURALIN 4 TSF before planting at a rate of 1 pint per acre on coarse and medium soils and 1-1/2 pints on fine soils.

PEA - TRIFLURALIN 4 TSF/Far-Go tank mix for pea in Idaho, Oregon and Washington:
The tank mix combination of TRIFLURALIN 4 TSF plus Far-Go will provide control of wild oat in addition to other annual grasses and broadleaf weeds controlled by TRIFLURALIN 4 TSF.

Application Rates: Broadcast 3/4 pint of TRIFLURALIN 4 TSF per acre on coarse and medium soils; 1 pint of TRIFLURALIN 4 TSF on fine soils. Use 1-1/4 quarts of Far-Go per acre for all soil textures.

Incorporation Directions: Apply and incorporate up to 3 weeks before planting. Follow recommended incorporation procedures for TRIFLURALIN 4 TSF.

Precautions: Do not apply to lentils. Leaf crinkling and delayed maturity of peas may occur, particularly on clay points in the northwest; but this is usually more than offset by a reduction of wild oat. Do not use foliage from treated peas for feed or forage. Refer to the cautions, precautions and directions on the Far-Go label.

PEA - Fall application to dry pea and English pea in Idaho, Oregon and Washington:
Apply and incorporate TRIFLURALIN 4 TSF any time between October 15 and December 31 at a broadcast rate of 1 pint per acre on coarse soils; 1-1/4 to 1-1/2 pints on medium soils; and 1-1/2 pints on fine soils. Destroy established weeds during seedbed preparation. Do not apply TRIFLURALIN 4 TSF in the fall to soils which are wet or are subject to prolonged periods of flooding.

PEANUT - (Spanish Peanut in Texas and Oklahoma):
Apply and incorporate TRIFLURALIN 4 TSF before planting, at planting or immediately after planting at a broadcast rate of 1 pint per acre on coarse soils. When incorporation after planting, take care not to disturb the seed.

PEANUT - TRIFLURALIN 4 TSF/Vernam tank mix (Spanish Peanut in Texas and Oklahoma):
TRIFLURALIN 4 TSF/Vernam tank mix effectively controls those weeds listed for TRIFLURALIN 4 TSF alone plus these additional weeds:

Purple nutsedge (nutgrass)	Coffeeweed
Yellow nutsedge (nutgrass	Velvetleaf
Annual morningglory	

Follow recommended soil preparation procedures for TRIFLURALIN 4 TSF. You may apply the TRIFLURALIN 4 TSF/Vernam tank mix up to 10 days prior to planting. Incorporate the tank mix immediately after application. Apply TRIFLURALIN 4 TSF/Vernam at these rates:

Broadcast Rates Per Acre

Soil Texture	TRIFLURALIN 4 TSF	Vernam 7E
	(pints)	(pints)
Coarse	1	2-1/3

POTATO - (All states except Maine):
Apply and incorporate TRIFLURALIN 4 TSF after planting, before emergence, or immediately following dragoff or after the potato plants have fully emerged.

Broadcast Rates Per Acre

	TRIFLURALIN 4 TSF	
Soil Texture	Areas receiving less than 20" average annual rainfall*	Areas receiving greater than 20" average annual rainfall*
	(pints)	(pints)
Coarse	1	1
Medium	1-1/4 - 1-1/2	1-1/2
Fine	1-1/2	2

*Use 1-1/2 pints per acre on coarse and medium soils with 0-5% organic matter; use 2 pints on all soils with 5-10% organic matter.

Set incorporation equipment so that the bed and furrow will be uniformly covered with a layer of treated soil. If the layer of treated soils is not uniform and the herbicide is concentrated over the seed, potato emergence may be retarded, and stem brittleness can occur. When applying and incorporating TRIFLURALIN 4 TSF after potato plants have fully emerged, do not completely cover the foliage with treated soil. Likewise, do not completely cover foliage at subsequent cultivations. Be careful that incorporation machinery does not damage potato seed pieces or elongating sprouts.

POTATO - Split application in Idaho, Oregon and Washington:
On all soils, apply and incorporate 3/4 pint of TRIFLURALIN 4 TSF per acre before planting and 3/4 pint after planting when potato plants have fully emerged. Do not apply to soils containing 2% or more organic matter. Follow incorporation directions listed above for application to potato after planting.

POTATO - TRIFLURALIN 4 TSF Eptam tank mix for potatoes grown in Kansas, Minnesota, Nebraska, North Dakota, Oklahoma, South Dakota and Texas:
The TRIFLURALIN 4 TSF/Eptam tank mix effectively controls the following weeds in addition to those weeds controlled by TRIFLURALIN 4 TSF.

Henbit (Spring applications)	Oat, wild
Nightshade, black	Ragweed, common
Nightshade, hairy	Smartweed, Pennsylvania
Nutsedge	Velvetleaf (Buttonweed)

Follow recommended soil preparation and application procedures for TRIFLURALIN 4 TSF. The TRIFLURALIN 4 TSF/Eptam tank mix may be applied after planting, but prior to crop emergence. In areas where potatoes are normally dragged off, the TRIFLURALIN 4 TSF/Eptam tank mix should be applied and incorporated up to or immediately following drag off.

Broadcast Rates Per Acre

	TRIFLURALIN 4 TSF		
Soil Texture	Areas receiving less than 20" average annual rainfall*	Areas receiving greater than 20" average annual rainfall*	Eptam 7E
	(pints)	(pints)	(pints)
Coarse	1	1	1-3/4 - 7**
Medium	1 - 1-1/2	1 - 1-1/2	1-3/4 - 7
Fine	1 - 1-1/2	1 - 2	1-3/4 - 7

*Use 1-1/2 pints per acre on coarse and medium soils with 0-5% organic matter; use 2 pints on all soils with 5-10% organic matter.

**Use the higher rate of Eptam 7E for nutsedge control.

Precaution: Read the Eptam label before using. Observe cautions and limitations of products used in mixtures. Do not graze or feed forage to livestock from fields treated with TRIFLURALIN 4 TSF/Eptam tank mix.

POTATO - TRIFLURALIN 4 TSF Eptam application before planting in Washington, Idaho and Oregon:
TRIFLURALIN 4 TSF/Eptam may be applied before planting at a broadcast rate of 1/4 pint of TRIFLURALIN 4 TSF per acre and 3-1/2 pints of Eptam 7E per acre on all soil textures. Incorporate immediately.

Precaution: Do not use this tank mix both before and after planting in the same season. Read the Eptam label before using. Observe all cautions and limitations on labeling of all products used in mixtures. Do not use foliage from treated crops for feed or forage.

SAFFLOWER
Follow recommended soil preparation, application and incorporation procedures for TRIFLURALIN 4 TSF.
Apply and incorporate TRIFLURALIN 4 TSF in the spring before planting or in the fall between October 15 and December 31.

Broadcast Rates Per Acre

	TRIFLURALIN 4 TSF	
Soil Texture	Areas receiving less than 20" average annual rainfall*	Areas receiving less than 20" average annual rainfall**
	(pints)	(pints)
Coarse	1	1
Medium	1-1/4 - 1-1/2	1-1/2
Fine	1-1/2	2

*Use 1-1/2 pints per acre on coarse and medium textured soils and 2 pints on fine soils with 2-5% organic matter; use 2 to 2-1/2 pints on all soils with 5-10% organic matter.

SAFFLOWER - Fall application in Arizona, California, Idaho, Montana, Nevada, Oregon, Utah, Washington and Wyoming:
Apply and incorporate TRIFLURALIN 4 TSF any time between October 15 and December 31. Ground may be left flat or bedded-up over winter. On bedded ground, knock beds down to desired height before planting, moving some treated soil from tops into furrows. Where soil is left flat over winter, take care during spring bedding operations to prevent turning up untreated soil. Destroy established weeds during seedbed preparation. If weeds become established in furrows due to uncovering of untreated soil during listing, destroy these weeds before planting. Apply and incorporate TRIFLURALIN 4 TSF at a broadcast rate of 1-1/2 pints per acre on coarse soils; 2 pints on medium soils; and

2-1/2 pints on fine soils.
Do not apply TRIFLURALIN 4 TSF in the fall to soils which are wet or are subject to prolonged periods of flooding.

SUGAR BEET
Apply TRIFLURALIN 4 TSF as a broadcast, overtop spray when plants are between 2 and 6 inches tall at a rate of 1 pint per acre on coarse soils and 1-1/4 to 1-1/2 pints on medium and fine soils. Use the higher rate for medium and fine soils in areas receiving more than 20" average annual rainfall. Set incorporation machinery to throw treated soil toward the plants in the row. Be careful that incorporation machinery does not damage the sugar beet taproot.

Precaution: Exposed beet roots should be covered with soil before a TRIFLURALIN 4 TSF application to reduce the possibility of girdling.

SUGAR BEET - Incorporation with a tine-tooth harrow in California, Colorado, Idaho, Montana, Nebraska, Oregon, Texas, Utah, Washington and Wyoming:
A properly operated tine-tooth harrow (Flextine or Melroe) can incorporate TRIFLURALIN 4 TSF for effective weed control in sugar beet.

Operate the tine-tooth harrow 2 times over the field in opposing directions at a speed of 3 to 6 mph. Set the harrow to cut 1 to 2 inches deep. Be careful that the tine-tooth harrow does not damage the sugar beet taproot. Follow recommended application procedures and broadcast rates per acre for sugar beet (see preceding paragraph).

SUGARCANE - (Plant Cane):
Apply and incorporate TRIFLURALIN 4 TSF twice a year at a broadcast rate of 2 to 4 pints per acre for all soil textures. Make the first TRIFLURALIN 4 TSF application in the fall on firmly packed beds immediately after the seed pieces are planted. Make the second TRIFLURALIN 4 TSF application in the spring before or shortly after the cane emerges. Loosen rain-packed beds 2 to 3 inches deep before the spring application. Take care that incorporation machinery does not damage the seed pieces or emerging shoots.

SUGARCANE - Postplant in Hawaii for control of most annual grasses, including guineagrass:
Surface apply TRIFLURALIN 4 TSF after planting (for plant cane) or after harvesting (for ratoon cane), before weeds and cane emerge harvesting (for ratoon cane), before weeds and cane emerge. Use a broadcast rate of 6 to 8 pints per acre for all soil textures. In plant cane, the beds should be formed or rolled before application. In ratoon cane, the crop residue should be removed before application. If large amounts of crop residues are present, TRIFLURALIN 4 TSF will not be effective. Apply TRIFLURALIN 4 TSF just before anticipated rainfall or sprinkle irrigate immediately after application.

SUGARCANE - Applications up to layby for plant cane or ratoon cane grown in Louisiana or Texas:

Apply and incorporate TRIFLURALIN 4 TSF at a broadcast rate of 2 to 4 pints per acre for all soil textures. Do this in the spring from before or shortly after the cane emerges up to layby. Apply the TRIFLURALIN 4 TSF after the beds have been shaved or false shaved. Loosen rain-packed beds 2 to 3 inches deep before application. Be careful that incorporation machinery does not damage seed pieces or emerging shoots. You may use a rolling cultivator or bed chopper to incorporate TRIFLURALIN 4 TSF layby applications in sugarcane on all soil textures. Follow normal incorporation directions for the rolling cultivator. Set bed chopper to cut 3 to 4 inches deep and operate at 4 to 6 mph. Two incorporation passes are necessary.

SUGARCANE - Itchgrass (Raoulgrass) control in Louisiana:
Apply and incorporate TRIFLURALIN 4 TSF on either plant or ratoon cane at a broadcast rate of 4 pints per acre for all soil textures. Follow the directions above for sugarcane layby application in Louisiana and Texas (see above).

SUNFLOWER - TRIFLURALIN 4 TSF ALONE
Apply and incorporate TRIFLURALIN 4 TSF in the spring or in the fall between October 15 and December 31. Follow recommended soil preparation, application and incorporation procedures for TRIFLURALIN 4 TSF.

Broadcast Rates Per Acre

	TRIFLURALIN 4 TSF	
Soil Texture	Areas receiving less than 20" average annual rainfall*	Areas receiving greater than 20" average annual rainfall*
	(pints)	(pints)
Coarse	1	1
Medium	1-1/4 - 1-1/2	1-1/2
Fine	1-1/2	2

*Use 1-1/2 to 2 pints per acre on coarse and medium soils with 2-5% organic matter and 2 pints on all soils with 5-10% organic matter.

SUNFLOWER - TRIFLURALIN 4 TSF/Amiben tank mix or overlay:

Follow recommended soil preparation, application and incorporation procedures for TRIFLURALIN 4 TSF.
Amiben may be applied in a band or broadcast over sunflowers at planting in fields where TRIFLURALIN 4 TSF has been incorporated prior to planting. Or, the TRIFLURALIN 4 TSF/Amiben tank mix may be incorporated prior to planting. TRIFLURALIN 4 TSF/Amiben tank mix improves mustard, smartweed, velvetleaf and ragweed control in addition to those weeds controlled by TRIFLURALIN 4 TSF alone.

Apply TRIFLURALIN 4 TSF/Amiben or TRIFLURALIN 4 TSF with an Amiben overlay

at the following broadcast rates per acre.

Soil Texture	TRIFLURALIN 4 TSF (pints)	Amiben 2S (quarts)
Coarse	1	4
Medium	1-1/2	4 - 6*
Fine	2	4 - 6*

*For best control of mustard, common ragweed or black nightshade use the 6 quart rate.

In coarse textured soils, heavy rains on the incorporated Amiben may move it below the weed seed germination zone and erratic weed control may result. If sufficient rain does not fall within 7 days after a preemergence application of Amiben, but there is enough soil moisture to germinate weeds and grasses, a light cultivation with a rotary hoe or similar tool will uproot these small broadleaf weeds and grasses. The shallow mixing of Amiben in the surface soil will not interfere with the action of Amiben when rains come.

TOMATO
For direct-seeded tomato, apply TRIFLURALIN 4 TSF at blocking or thinning as a directed spray to the soil between rows and beneath the plants, and incorporate. For transplant tomato, apply and incorporate TRIFLURALIN 4 TSF before transplanting. Do not apply TRIFLURALIN 4 TSF after transplanting.

Broadcast Rates Per Acre

	TRIFLURALIN 4 TSF	
Soil Texture	Areas receiving less than 20" average annual rainfall* (pints)	Areas receiving greater than 20" average annual rainfall* (pints)
Coarse	1	1
Medium	1-1/4 - 1-1/2	1-1/2
Fine	1-1/2	2

*Use 1-1/2 pints per acre on coarse and medium textured soils and 2 pints on fine soils with 2-5% organic matter, use 2 pints on all soils with 5-10% organic matter.

FRUIT AND NUT CROPS AND VINEYARDS
For areas receiving more than 20" average annual rainfall.
For new plantings of vineyards, citrus and pecan trees, apply and incorporate TRIFLURALIN 4 TSF before planting at a broadcast rate of 1 pint per acre on coarse soils; 1-1/2 pints on medium soils; 2 pints on fine soils; 1-1/2 pints on fine soils with 2-5% organic matter; and 2 pints on soils with 5-10% organic matter.
For non-bearing, established plantings of citrus and pecan trees and

bearing plantings of grapefruit, lemon, orange, pecan, tangelo and tangerine trees, apply TRIFLURALIN 4 TSF at a broadcast rate of 2 to 4 pints per acre for all soil textures.
For areas receiving less than 20" average annual rainfall.
For new plantings of almond, apricot, citrus, nectarine, peach, pecan and walnut trees, apply and incorporate TRIFLURALIN 4 TSF before planting at a broadcast rate of 1 pint per acre on coarse soils; 1-1/4 to 1-1/2 pints on medium soils; 1-1/2 pints on fine soils; 1-1/2 to 2 pints on soils with 2-5% organic matter; and 2 pints on soils with 5-10% organic matter.
For new plantings of vineyards, apply and incorporate TRIFLURALIN 4 TSF before planting at a broadcast rate of 1 to 1-1/2 pints per acre on coarse soils; 1-1/2 to 3 pints on medium soils, and 3 to 4 pints on fine soils or soils with 2-10% organic matter. Do not use more than 2 pints per acre on heat-treated grape rootings. For postplant applications on bearing or non-bearing established plantings of vineyards and almond, apricot, grapefruit, lemon, nectarine, orange, peach, plum, prune, tangelo, tangerine and walnut trees, apply TRIFLURALIN 4 TSF at a broadcast rate of 2 to 4 pints per acre for all soil textures. Do not apply to vineyards within 60 days of harvest.
In established plantings, apply TRIFLURALIN 4 TSF as a directed spray to the soil and use in incorporation methods not injurious to the trees or vines.

FRUIT AND NUT CROPS AND VINEYARDS - Rhizome johnsongrass control:
For areas receiving less than 20" average annual rainfall.
You can obtain commercially acceptable control of rhizome johnsongrass with postplant applications in bearing and nonbearing, established plantings of vineyards and almond, apricot, grapefruit, lemon, nectarine, orange, peach, pecan, tangelo, tangerine and walnut trees with a TRIFLURALIN 4 TSF program when applied for 2 years in a row.
Soil Preparation - Work the soil thoroughly to bring the rhizomes nearer the surface.
Application - Apply TRIFLURALIN 4 TSF at a broadcast rate of 2 quarts per acre on all soil textures each year for 2 years in a row. Do not apply to vineyards within 60 days of harvest.
Incorporation - Incorporate TRIFLURALIN 4 TSF thoroughly with a disc set to cut 4 to 6 inches deep and operate at 4 to 6 mph. Two incorporation passes are necessary with the second pass in a different direction from the first.
Cultivation - Some johnsongrass plants will escape. Timely cultivations are necessary to obtain commercially acceptable control. You cannot obtain commercially acceptable control with only 1 year of TRIFLURALIN 4 TSF use.
Precautions: Do not use the 2 quarts rate on new plantings, or crop injury may result. Do not interplant orchards or vineyards with other crops. If the treated vineyards and orchards are diverted to other crop uses, plant only those crops for which TRIFLURALIN 4 TSF has been registered as a preplant treatment for the next cropping season.

FRUIT AND NUT CROPS AND VINEYARDS - Bindweed control in California:
TRIFLURALIN 4 TSF can be used for the control of field bindweed in vineyards and for almond, apricot, grapefruit, lemon, nectarine,

orange, peach, pecan, tangelo, tangerine and walnut trees. Apply TRIFLURALIN 4 TSF at a broadcast rate of 4 pints per acre on all soil textures. TRIFLURALIN 4 TSF must be applied in the spring with a specially designed spray blade which applies a thin, concentrated layer at a soil depth of 4 to 6 inches. This layer of TRIFLURALIN 4 TSF prevents bindweed shoots from emerging.
Land Preparation - Destroy all weeds and grasses with soil tillage before applying TRIFLURALIN 4 TSF. This tillage is necessary to prevent trash from interfering with the operation of the spray blade.
Equipment - This operation requires a spray blade capable of running 4 to 6 inches below the surface of the soil. The spray blade should be equipped with nozzles located under the blade and directed so that the TRIFLURALIN 4 TSF spray will be trapped under the soil which is flowing over the blade as it is pulled through the soil. Use a sufficient number of nozzles with spacing that will uniformly apply the TRIFLURALIN 4 TSF underground in a thin, horizontal layer.
Application - Apply TRIFLURALIN 4 TSF in 40 to 80 gallons of water per acre. Operate the spray blade at a depth of 4 to 6 inches.
Precaution: Some soils develop cracks as they dry after rainfall or irrigation. Field bindweed may emerge if the cracks extend through the TRIFLURALIN 4 TSF layer. Prevent or eliminate cracks by shallow discing or other tillage. Avoid deep tillage which disturbs the subsurface layer. Cultivation or tillage also aids the control of germinating seeds.

WHEAT (WINTER) - (Idaho, Montana, Oregon and Washington):
TRIFLURALIN 4 TSF may be applied for preplant preemergence control of cheatgrass and other annual grasses and broadleaf weeds controlled by TRIFLURALIN 4 TSF. The growth, development and yield of winter wheat will not be adversely affected, provided the seed is placed below the zone of soil treated with TRIFLURALIN 4 TSF.
Apply TRIFLURALIN 4 TSF any time during a period from 3 weeks up to immediately prior to planting. Broadcast TRIFLURALIN 4 TSF at a rate of 1-1/2 pints per acre on coarse and medium soils and 2 pints on fine soils.
Incorporation Directions - Incorporate TRIFLURALIN 4 TSF into the soil with a flexible tine-tooth harrow (Flextine, Melroe) set to cut 1 to 2 inches deep and operate at 3 to 6 mph. Incorporate one time within 24 hours after application, followed by a second incorporation in a different direction from the first prior to planting. Do not till the soil with a disc after the TRIFLURALIN 4 TSF has been incorporated with a flexible tine harrow.
Seeding Directions - Use only a deep furrow or semi-deep furrow drill that will place the seed below the zone of soil into which TRIFLURALIN 4 TSF has been incorporated.
Precaution: Wheat planted in direct contact with treated soil may suffer crop injury in the form of delayed emergence and development.

WHEAT (WINTER) - Fallow soil application in Washington and Oregon:
TRIFLURALIN 4 TSF applied and shallowly incorporated into fallow soil up to four months ahead of planting will control cheatgrass and certain annual grasses and broadleaf weeds. The growth, development, or yield will not be adversely affected as long as the seed is placed below the zone of soil treated with TRIFLURALIN 4 TSF. Use

deep or semi-deep furrow drills.
Broadcast rates are 1-1/2 pints per acre on coarse and medium soils and 2 pints on fine soils. Apply TRIFLURALIN 4 TSF any time from May to September prior to the fall planting of winter wheat.
Incorporation - Incorporate TRIFLURALIN 4 TSF with a flexible tine-tooth harrow (Flextine or Melroe) set to cut 1 to 2 inches deep and operated at 3 to 6 mph. For thorough incorporation, two passes of the equipment in different directions over the field are necessary. Incorporate one time within 24 hours after application followed by a second incorporation prior to seeding. Do not till the soil with a disc after TRIFLURALIN 4 TSF has been applied with a flexible tine harrow.
Precaution: Use only deep furrow or semi-deep furrow drills. Place seed below the zone of soil into which TRIFLURALIN 4 TSF has been incorporated. Do not plant wheat directly into the zone of soil treated with TRIFLURALIN 4 TSF as injury to the crop or a delay in its emergence and development may occur.

WHEAT (SPRING), DURUM AND BARLEY - TRIFLURALIN 4 TSF ALONE
TRIFLURALIN 4 TSF is recommended as a postplant incorporated treatment to control foxtail (pigeongrass).
Apply TRIFLURALIN 4 TSF at a broadcast rate of 1 pint per acre on coarse and medium soils and 1-1/2 pints on fine soil.
Plant 2 to 3 inches deep in a well-tilled seedbed. Apply TRIFLURALIN 4 TSF after seeding but before the crop emerges. To incorporate, use flex-tine or diamond harrows operated two times in different directions, at speeds of at least 5 mph. Incorporate by operating equipment 1 to 1-1/2 inches deep. Application and the first incorporation should be done in the same operation if possible. Both incorporations must be done within 24 hours.

WHEAT (SPRING), DURUM, BARLEY (FALL APPLICATION) - Foxtail/Pigeongrass control:
TRIFLURALIN 4 TSF may be fall applied for foxtail/pigeongrass control in spring wheat, durum and barley planted the following spring.
TRIFLURALIN 4 TSF may be applied to ground that has a manageable trash level, has been fallowed or pre-tilled. The first incorporation is required within 24 hours after application. A second incorporation is required prior to planting to destroy emerged weeds and to ensure an even distribution of TRIFLURALIN 4 TSF treated soil.

Broadcast Rates Per Acre

Soil Texture	TRIFLURALIN 4 TSF
	(pints)
Coarse	1
Medium	1
Fine	1-1/2

Incorporation Directions - Any of the following tools are recommended for fall incorporation. The disc or field cultivator may be used for the spring incorporation pass. Care should be taken to operate the tool at a more shallow depth than the fall incorporation.

1. Chisel plow: May be used for the first pass only. Operate at 4-5 inches deep at 4-6 mph. A chisel plow is defined as having 3 rows of up to 18-inch sweeps on no greater than 12-inch centers. Stagger sweeps so that no soil is left unturned.
2. Tandem disc: Operate at 3-4 inches deep at 4-6 mph.
3. Field cultivator. Operate at 3-4 inches deep at 5 mph or more. A field cultivator is defined as having 3 to 4 rows of sweeps with "c" or "s" shaped shanks, spaced 7 inches or less and staggered so that no soil is left unturned.

Planting Directions - Wheat, durum, or barley should be approximately 2 inches deep.
Precaution - While use of this practice may result in a stand reduction, slight stand reductions do not normally affect yield.

WHEAT (SPRING), DURUM AND BARLEY - TRIFLURALIN 4 TSF/Far-Go tank mix:
TRIFLURALIN 4 TSF/Far-Go applied as a postplant incorporated treatment will control foxtail (pigeongrass) and wild oat.
Plant 2 to 3 inches deep in a well-tilled seedbed. Apply TRIFLURALIN 4 TSF/Far-Go after seeding but before crop emerges. To incorporate, use flex-tine or diamond harrows two times, operated in different directions, at speeds of at least 5 mph. Incorporate by operating equipment 1 to 1-1/2 inches deep. Application and the first incorporation should be done in the same operation if possible. If not, incorporate immediately after application.

Broadcast Rates Per Acre

	TRIFLURALIN 4 TSF	Far-Go	
Soil Texture	Durum Spring Wheat	Durum Spring Wheat	Barley
	(pints)	(pints)	(pints)
Coarse	1	2-1/2	2
Medium	1	2-1/2	2
Fine	1-1/2	2-1/2	2

Precaution: Overapplication may result in crop injury. Read the Far-Go label carefully before using.

FALL APPLICATION
General: (Areas receiving more than 20" average annual rainfall)
See specific crop for recommendations. For all crops for which there are no specific fall application instructions and for which TRIFLURALIN 4 TSF is recommended as a preemergence application use the rates listed for spring applications. Do not apply TRIFLURALIN 4 TSF in the fall for sugarbeets, potatoes and direct-seeded tomatoes.

In most states apply and incorporate TRIFLURALIN 4 TSF any time between October 15 and December 31. In Minnesota, Montana, North and South Dakota, apply and incorporate TRIFLURALIN 4 TSF anytime between September 1 and December 31. Ground may be left flat or bedded-up over

winter. On bedded ground, knock beds down to desired height before planting, moving some treated soil from beds into furrows. Where soil is left over winter, be careful not to turn up untreated soil during spring bedding operations. Destroy established weeds during seedbed preparation. If weeds become established in furrows due to uncovering of untreated soil during bedding, destroy these weeds before planting. Do not apply TRIFLURALIN 4 TSF in the fall to soils which are wet, are subject to prolonged periods of flooding, or where rice was grown the previous year.

FERTILIZER USE DIRECTIONS
APPLICATION WITH LIQUID FERTILIZERS
TRIFLURALIN 4 TSF may be mixed with most liquid fertilizer materials. The combination of TRIFLURALIN 4 TSF with solutions and suspension-type fertilizers has provided weed and grass control equal to the same rates of TRIFLURALIN 4 TSF applied in water. Follow TRIFLURALIN 4 TSF label recommendations regarding rates per acre, crops, incorporation directions, special instructions, cautions and special precautions.

Individual state regulations relating to liquid fertilizer mixing, registration, labeling and applications are the responsibility of the individual and/or company selling the fertilizer and chemical mixture.

Testing for Tank Mix Compatibility in Liquid Fertilizers:
TRIFLURALIN 4 TSF alone or in tank mixture with dry flowables, wettable powders (WP), aqueous suspensions (AS), flowables (F), liquids (L), or solutions (S) may not combine properly with some fluid fertilizer materials. Small quantities should always be tested before full-scale mixing. This will determine whether a compatibility agent is needed, and which agent does the best job. The seven agents listed below have been thoroughly tested. There are many other surfactants on the market which were not designed for use with liquid fertilizers. Use the following test to select the correct agent for your mixture.

1. Put 1 pint of the liquid fertilizer in a quart jar.
2. Add 1 to 4 teaspoonful(s) of the dry flowable, WP, AS, F or L formulation (depending on the recommended rate per acre) to the liquid fertilizer. Close jar and agitate until the materials are dispersed evenly in the fertilizer. If the materials do not disperse well, it may be necessary to slurry the chemicals in water before adding to the fertilizer.
3. After dispersing the materials (Step 2), add 3 to 4 teaspoonsful of TRIFLURALIN 4 TSF to the jar and shake well. Add solution herbicides to the mixture last and agitate. Observe the jar for about 10 minutes. If the materials rise to the surface and form a thick layer (oily curds) which will not redisperse when agitated, a compatibility agent is needed. If the mixture is easily redispersed to its original state with slight agitation, no agent is needed but good agitation must be provided in the fertilizer spray tank.
4. If the need for a compatibility agent is shown in Step 3, use a clean quart jar, start at Step 1 above, add 1/2 teaspoon of the compatibility agent to the liquid fertilizer, mix well then

repeat Steps 2 and 3.
An effective compatibility agent will cause the mixture to remain uniformly mixed with little or no separating or oil rising to the surface for one half hour or longer. If slight separation does occur, 2 to 3 inversions of the jar should give a uniform remix. If oily curds form which will not redisperse, more agent or another agent should be tried.

Use a clean jar for each test. The compatible mixture will have a uniform appearance and will be relatively easy to keep mixed with gentle agitation of the jar.

LIQUID FERTILIZER MIXING INSTRUCTIONS
TRIFLURALIN 4 TSF in Liquid Fertilizer
Emulsifiable concentrates, such as TRIFLURALIN 4 TSF can be mixed with liquid fertilizers. In all cases, continuous agitation is required to prevent the TRIFLURALIN 4 TSF from rising to the surface as an oily layer. When necessary, (see Testing for Tank Mix Compatibility in Liquid Fertilizers, above) a compatibility agent can be used to cause the TRIFLURALIN 4 TSF to emulsify properly (i.e., have a milky appearance rather than oily layer). The use of compatibility agents is especially important when tank mixing emulsifiable concentrates (E.C.) with dry flowables, wettable powders (WP), aqueous suspensions (AS), flowables (F), liquids (L), or solutions (S) in liquid fertilizer. If the emulsion is not properly formed and the TRIFLURALIN 4 TSF rises to the surface of the fertilizer as an oil ("oils out"), the oil may combine with the wettable powder, flowable, or suspension to form oily curds (viscous phase) which is difficult to redisperse. Any one of the compatibility agents listed below is helpful in causing liquid concentrates to form non-oiling mixtures with liquid fertilizers. These compatiblity agents can be used at rates as low as 1-1/2 to 2 pints per ton of liquid fertilizer and should be mixed well with the fertilizer before adding the liquid concentrate. Read the label on the compatibility agent and follow the directions.

1. Sponto 168D (Witco Chemicals Co., Chicago, IL)
2. Compat (Farm Chemicals, Inc., Aberdeen, NC)
3. Unite (Hopkins Ag Chemical, Madison, WI)
4. T-Mulz 734-2 (Thompson-Hayward Chemical Co.)
5. Rigo Compatibility Agent (Rigo Company, Buckner, KY)
6. Amoco Spray Mate* (Amoco Oil Co., Chicago, IL)
7. Kem-Link (Universal Coop., Minneapolis, MN)

All of the above are phosphate, ester-type surfactants designed to be used with liquid fertilizers. They usually do not work as compatibility agents in tank mixtures in plain water.

APPLICATION
Spread the fertilizer/pesticide mixture with a properly calibrated applicator. Be certain the material is applied uniformly to the soil surface.

INCORPORATION
Follow normal TRIFLURALIN 4 TSF incorporation procedures.

TRIFLURALIN 4 TSF APPLICATION WITH DRY BULK FERTILIZERS
General

Dry bulk fertilizers may be impregnanted or coated with TRIFLURALIN 4 TSF. Application of dry bulk fertilizers impregnated with TRIFLURALIN 4 TSF has provided weed and grass control equal to the same rates of TRIFLURALIN 4 TSF applied in water.

All TRIFLURALIN 4 TSF label recommendations regarding rates per acre, approved crops, incorporation, special instructions, cautions and special precautions must be followed.

Apply a minimum of 200 pounds per acre of dry fertilizer impregnated with TRIFLURALIN 4 TSF at the recommended rates. Any commonly used dry fertilizers can be used for TRIFLURALIN 4 TSF impregnation except coated ammonium nitrate and straight limestone. These material will not absorb the herbicide. Blends containing mixtures of these materials can be impregnated.

Impregnation - Use any closed drum, belt, ribbon or other commonly used dry bulk fertilizer blender. Apply TRIFLURALIN 4 TSF uniformly to the fertilizer.

Rates - Check specific crop recommendations for the rate of TRIFLURALIN 4 TSF per acre. See the rate table which follows to determine the amount of TRIFLURALIN 4 TSF to be impregnated into a ton of dry bulk fertilizer based on the amount of fertilizer which will be applied per acre. (see rate chart below)

Application - Spread the fertilizer/chemical mixture with a properly calibrated applicator. Be certain the material is applied uniformly to the soil surface.

Incorporation - Follow TRIFLURALIN 4 TSF incorporation procedures.

RATE CHART FOR IMPREGNATING FERTILIZER WITH TRIFLURALIN 4 TSF
(TRIFLURALIN 4 TSF Added to a TON of Fertilizer)

Fertilizer Rate Per	TRIFLURALIN 4 TSF Rate Per Acre				
Acre	1 pint	1-1/2 pints	2 pints	3 pints	4 pints
200 lbs.	5 qts.	7-1/2 qts.	10 qts.	15 qts.	20 qts.
250 lbs.	4 qts.	6 qts.	8 qts.	12 qts.	16 qts.
300 lbs.	3-1/3 qts.	5 qts.	6-2/3 qts.	10 qts.	13-1/3qts
350 lbs.	2-3/4 qts.	4-1/4 qts.	5-3/4 qts.	8-1/2 qts.	11-1/2qts
400 lbs.	2-1/2 qts.	3-3/4 qts.	5 qts.	7-1/2 qts.	10 qts
450 lbs.	2-1/4 qts.	3-1/3 qts.	4-1/2 qts.	6-2/3 qts.	9 qts
	per ton	per ton	per ton	per ton	per ton

For rates other than those listed above, use the following formula to calculate the amount of TRIFLURALIN 4 TSF to be impregnated on a ton of dry bulk fertilizer:

$$\text{Pints TRIFLURALIN 4 TSF Per Acre} \times \frac{1000}{\text{Pounds}} = \text{Quarts TRIFLURALIN 4 TSF Per Ton of Fertilizer}$$

Fertilizer
Per Acre

CONDITIONS OF SALE

All statements concerning the use of this product apply only when used as directed. THE MANUFACTURER MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, CONCERNING THIS PRODUCT OR ITS USE, WHICH EXTEND BEYOND THE DESCRIPTION ON THE LABEL. Read all directions carefully.

Amiben*-chloramben, Union Carbide Agricultural Products Co., Inc.
Caparol*-prometryn, Ciba-Geigy Corporation
Cotoran*-Fluometuron, Ciba-Geigy Corporation
Eptam*-EPTC, Stauffer Chemical Company
Far-Go*-triallate, Monsanto Agricultural Products Company
Karmex*-diuron, E.I. duPont de Nemours and Company
Lexone*-metribuzin, E. I. duPont de Nemours and company
Sencor*-metribuzin, Bayer, GmbH
Vernam*-vernolate, Stauffer Chemical Company